

REMARKS

Claims 1 to 12 are pending in this application, of which claim 1 is independent. New dependent claim 12 has been added. Support for claim 12 can be found, in one example, in Table 1 of the present application. No new matter has been added. Favorable reconsideration of the action mailed December 8, 2005 is respectfully requested in view of the foregoing amendments and the following remarks.

Claims 1-3 and 5-9 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Hansen (U.S. 3,461,422) in view of Sirigu et al. (U.S. 6,193,019).

Claim 1 is allowable for a number of independent grounds. First, claim 1 recites a safety system for an elevator that includes "elevator landing door surveillance units (10), installed on each elevator landing door (12)." Each surveillance unit (10) has "measuring modules (36) respectively connected to the electrical contacts (11, 12) so as to receive the locking state and the closing state of the elevator landing door (21), the measuring modules (36) being connected to a processing unit (31) of the surveillance unit (10)."

Hansen discloses an alarm system for an elevator that includes switches respectively located at each landing. The system activates an alarm when any one of the switches is actuated, thereby indicating that a hoistway door is open while the elevator is between landings. The switches of Hansen, as the examiner correctly notes, do not detect the *locked or unlocked state* of a hoistway door. Further, the switches of Hansen are directly connected to a single alarm control panel that activates the alarm. Hansen does not disclose the claimed "surveillance unit" installed on each elevator landing door in which the measuring modules are connected to a *processing unit* of the surveillance unit.

Sirigu discloses a device that includes an electrical safety chain which connects landing door locks of an elevator in series, and a number of electrical impedances mounted respectively in parallel with the locks. The impedances have specific values which differ from each other. In operation, the device measures the total impedance of the safety chain and compares the measured impedance with a floor-impedance cross reference table that contains all the

impedance values of the safety chain. The device identifies the floor on which a *fault* has occurred as the one where the measured impedance matches an impedance of the table.

Although a fault in Sirigu is indicative of an improperly closed door or an improperly secured lock (col. 2, lines 54-56), the device of Sirigu is not configured to distinguish between the two types of faults based on the measured impedance. That is, the device of Sirigu is able to identify that a fault has occurred and its location, but is not able to identify whether the fault has occurred as a result of an improperly closed door or as a result of an improperly secured lock. By contrast, the claimed "surveillance units" each include "measuring modules (36) respectively connected to the electrical contacts (11, 12) so as to receive the locking state and the closing state of the elevator landing door (21)." Further, by virtue of the manner in which the device of Sirigu determines which floor the fault occurred in,¹ it is clear that Sirigu does not contemplate the claimed "surveillance unit" installed on each elevator landing door in which the measuring modules are connected to a *processing unit* of the surveillance unit.

As a second independent grounds for allowability, the safety system of claim 1 also includes a "synthesis unit (4) connected to the surveillance units (10) to receive the state of the elevator landing door electrical contacts (11, 12), and connected to the elevator control unit (5) to receive other information on the working order of the elevator, the synthesis unit (4) comprising means of determining (41) an operating state of the elevator based on the information received from the surveillance units (10) and the elevator control unit (5), the operating state being one of a plurality of predetermined operating states."

Neither Hansen nor Sirigu, alone or in combination, disclose or suggest the claimed "synthesis unit" that determines an operating state of the elevator based on information received from the elevator control unit and the various surveillance units about the locking states of the

¹ "The microprocessor includes a memory unit in which a cross reference table of floor-impedances is stored. This table may be determined as follows: the **total impedance** p of the safety chain is measured when the landing doors of all floors are closed and the locks are secured.... In the event a breakdown takes place, the microprocessor identifies the number of the floor where the fault occurred in the following manner: starting with the voltage and intensity values V and I measured by the measuring devices 42 and 44, the microprocessor 46 computes the safety chain's impedance value V/I and compares it with the values in the preceding table. Since this table represents all the situations, the impedance computed by the microprocessor must therefore correspond to one or the other value of the table. The thus identified floor number is then shown on the display device 48." (col. 3, lines 21-24 and 51-61)

respective elevator landing doors, the closing states of the respective elevator landing doors, *and* the working order of the elevator. At most, the system of Hansen activates an alarm when a hoistway door is opened while the elevator is located between landings, and the system of Sirigu activates an alarm when a door is improperly closed or a lock is improperly secured. Neither Hansen nor Sirigu take into consideration the working order of the elevator when determining an operating state of the elevator.

Claims 2, 3, and 5-9 depend on claim 1 and are patentable for at least the same reasons set forth above with respect to claim 1.

Claims 10 and 11 depend on claim 1 and were rejected as obvious over Hansen in view of Sirigu and further in view of Coste et al. (U.S. 4,750,591). The latter reference adds no teachings or suggestions to Hansen and Sirigu to render claim 1 obvious and therefore claims 10 and 11 are patentable for at least the same reasons as claim 1 from which they depend.

The applicant acknowledges the examiner's indication that claim 4 contains allowable subject matter.

New claim 12 depends on claim 1 and is patentable for at least the same reasons set forth above with respect to claim 1.

It is believed that all of the pending claims have been addressed. However, the absence of a reply to a specific rejection, issue or comment does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above may not be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment.


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Respectfully submitted,

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